



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,963	11/16/2001	Yutaka Miyahara	107156-00086	7869

7590

01/23/2006

ARENT FOX KINTNER PLOTKIN & KAHN, PLLC  
Suite 600  
1050 Connecticut Avenue, N.W.  
Washington, DC 20036-5339

EXAMINER
----------

PHAM, TUAN

ART UNIT	PAPER NUMBER
----------	--------------

2643

DATE MAILED: 01/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	09/987,963		MIYAHARA, YUTAKA	
	<b>Examiner</b>		<b>Art Unit</b>	
	TUAN A. PHAM		2643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2005.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, and 5-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments, see Applicant's remark, filed on 11/09/2005, with respect to the rejection(s) of claim(s) 1-6 under 103(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Taisuke Konishi et al. (Patent No.: JP411225099A).

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-3, and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nochida Hitoshi (Pub. No.: JP 10093503A) in view of Taisuke Konishi et al. (Patent No.: JP411225099A).**

**Regarding claims 1 and 6**, Nochida Hitoshi teaches a method and a receiver device comprising (see figure 1):

a plurality of antennas having different antenna gains (see figure 1, antenna 1a, 1b, page 2, [0009]);

an antenna switching device for selecting one of reception signals received by the plurality of antennas (see figure 1, switch 3, switch 2, page 2, [0009]), and supplying the selected reception signal to a signal processor arranged subsequent to the antenna switching device (see figure 1, RF controller 6, page 2, [0009]);

a detector for detecting the level of a reception signal from each antenna (see figure 1, RSSI detector 7, page 2, [0009]);

a controller for controlling the antenna switching device for selecting a reception signal having a lower level than a maximum input level of the signal processor, in accordance with detection result from the detector (see figure 1, page 2-3, [0009-0015]).

It should be notice that Nochida fails to teach the controller operates to control the antenna switching device, in a manner such that once the level of a reception signal supplied to the signal processor becomes lower than a predetermined level, an antenna having a higher antenna gain than that of an antenna being selected is selected.

However, Taisuke Konishi teaches such features (see figures 1-4, pages 1-2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Taisuke Konishi into view of Nochida in order to offer the diversity reception equipment with which the diversity effectiveness does not deteriorate as suggested by Taisuke Konishi at page 1, [0004].

**Regarding claim 2**, Nochida Hitoshi further teaches a receiver device wherein the controller has a judger for judging a reception state of each antenna; and when there are a plurality of antennas capable of receiving signals without any troubles, the

antenna switching device is controlled so as to select a reception signal from an antenna having a low antenna gain (see page 3, [0013-0014], threshold comparison).

**Regarding claim 3**, Nochida Hitoshi further teaches a receiver device wherein the plurality of antennas are located close to one another, wherein the controller operates to control the antenna switching device, in a manner such that once the level of a reception signal supplied to the signal processor approaches a maximum input level of the signal processor, an antenna having a lower antenna gain than that of an antenna being selected is selected (see page 3, [0013-0014]).

**Regarding claim 5**, Taisuke further teaches a receiver device wherein the controller operates to control the antenna switching device, in a manner such that once a reception signal of each antenna becomes lower than a predetermined level, a reception signal from an antenna having a high antenna gain is selected, and that when there are plurality of reception signals having a higher level than the predetermined level, a reception signal from an antenna having a low antenna gain is selected (see pages 1-2).

### Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Tuan A. Pham** whose telephone number is (571) 272-8097. The examiner can normally be reached on Monday through Friday, 8:00 AM-5:00 PM.

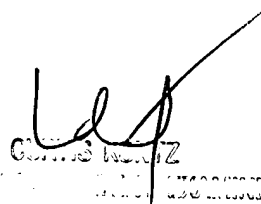
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Curtis Kuntz can be reached on (571) 272-7499 and

**IF PAPER HAS BEEN MISSED FROM THIS OFFICIAL ACTION PACKAGE, PLEASE CALL Customer Service at (571) 272-2600 FOR THE SUBSTITUTIONS OR COPIES.**

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit 2643  
January 12, 2006  
Examiner

Tuan Pham



Curtis Kuntz  
Supervisor  
Art Unit 2643